

LUMINESCENT IMAGE ANALYZER
LAS-3000mini



FUJINON LENS
SUPER CCD
COMPACT BODY



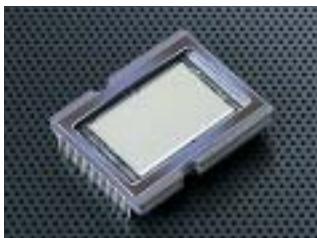
Compact, but packed with Proprietary

Equipped with a high-quality, cooled CCD camera and a compact image-analysis system

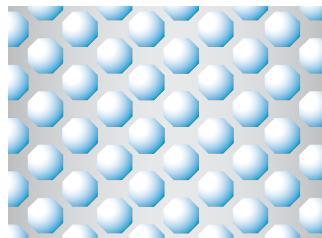
A digital system dispensing with dark rooms, films, and chemicals
High-quality images resulting from high sensitivity and smoothing function
Reduced exposure time due to multiple binning modes
Easy operation improved by Image Reader software

Super CCD chip affords up to 6.3 million pixels

By rotating pixels 45 degrees to form an interwoven layout, the Super CCD's pixel pitch in the horizontal and vertical directions is narrower than in the diagonal direction, achieving higher horizontal and vertical resolution.



Super CCD chip



Octagonal pixel-interwoven layout



Equipped with a newly designed large-aperture F0.85 lens

The analyzer incorporates a FUJINON, a strikingly bright lens with an F-number of 0.85. This lens has been especially designed to make full use of the advantages of Fujifilm's proprietary Super CCD chip, and is excellent for capturing images from distances as short as several tens of centimeters. In its design, optical expertise developed through professional applications such as broadcasting TV cameras is fully exploited.



FUJINON LENS VRF43LMD-II F0.85

High-grade performance in a compact body

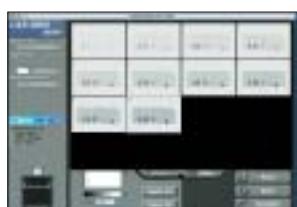
The same grade of camera and lens as in LAS-3000, the highest-grade model of the LAS series, are used. By limiting the applications to the specific areas of chemiluminescence and bioluminescence, a compact body is made possible while still retaining the high resolution and high performance of LAS-3000. Free from the necessity for dark rooms and chemicals, the analyzer can be placed on the top or side of an ordinary desk, and requires no special expertise for operation.

Image capture software (supplied standard); LAS-3000mini Image Reader

LAS-3000mini Image Reader running on a PC can be used to specify image capture parameters. You can specify image capture parameters, such as the exposure method, exposure time, sensitivity, resolution, etc., according to instructions given on the screen. You can specify the settings of the detection method and diaphragm in accordance with the recommendations on the screen of Method / Tray position. Manual setting is not needed for any of the image corrections required for quantitative analysis, which is carried out automatically.



Screen of Method/Tray position



Screen of Exposure Increment

Expertise in Bioscience

Dedicated to luminescence applications, and particularly suitable for Western blotting applications

A compact image analysis system dedicated to chemiluminescence/bioluminescence applications,
the perfect standard system for Western blotting applications.

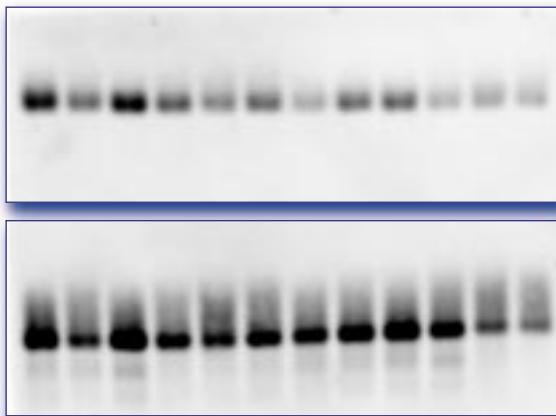
Applicable reagents

Chemiluminescence: CDP-Star®, ECL Plus™, ECL™, SuperSignal®, ImmunoStar, CSPD®, etc.

Bioluminescence : Luciferase, etc.

Sample images

Sample images from various blotting and titer plate applications are captured.

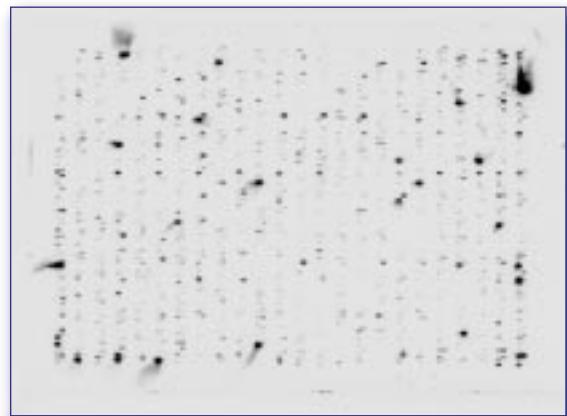


Calcium-binding protein expressed in the rat small intestine, detected by Western blotting

Substrate : CSPD®

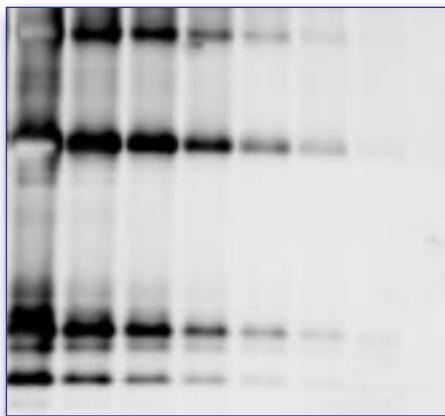
Exposure Time : 10min

Data courtesy of Laboratory of Molecular Nutrition Laboratory,
Kagawa Nutrition University



Atlas™ Plastic Mouse 5K Microarray SpotLight™
Chemiluminescent Hybridization & Detection kit

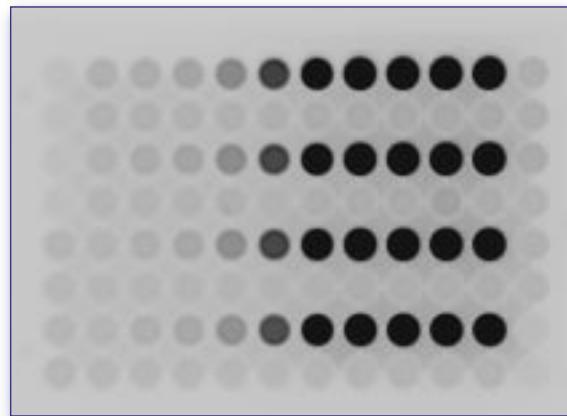
Exposure Time : 10min



Mouse IgG detected by Western blotting

Substrate : ECL™ Advance

Exposure Time : 4sec



Human IgG on a titer plate, detected by ELISA

Substrate : ECL™

Note: A non-parallax tray (optional product) was used.

Optional Products

LAS-3000mini UV-Bay set

Combination usage of a UV-Bay set and any additional UV transilluminator enables the LAS-3000mini to capture UV transilluminated images.

Includes:

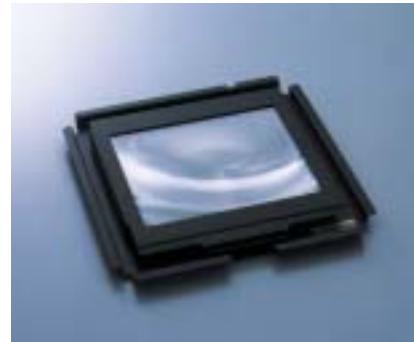
- housing box
- 605DF40 optical filter for EtBr detection

* Requires additional UV transilluminator.



Non-parallax (NP) tray

A non-parallax (NP) tray is used to eliminate the parallax effect when imaging chemiluminescence in the 96-well plate. Up to two plates can be placed.



LAS-3000mini Basic Specifications

Specifications and Configuration

Image Capturing Unit (Requires additional Analyzing Unit)

Camera head and Controller	
CCD chip	: Fujifilm Super CCD Area Type chip
Number of pixels	: 3.2 million pixels
Pixel size	: Approx. 11 μ m
Cooling	: Two-stage thermoelectric module with air circulation
Cooling temperature	: Down to -30°C When room temperature is below 28 .)
Dynamic range	: Four orders of magnitude
Focusing and diaphragm	: Manual
Gradation	: 16 bits
Exposure mode	: Automatic / manual (normal / incremental / repetitive)
Exposure time	: Automatic / manual (1 / 100 seconds to 30 hours)
Pixel correction	: Dark-frame correction, flat-frame correction, distortion correction, etc.
Image quality correction	: Binning and smoothing
Image size	: Up to 12 MB (formats : FUJI and TIFF)
Read pixel size	: Down to 35 μ m
Maximum sample size	: 18 \times 12 cm
Interface	: USB 1.1
Intelligent Dark Box VI	
Dedicated tray	: For chemiluminescence
Lens	: High-sensitivity lens : FUJINON VRF43LMDII F0.85

Applicable reagents

Chemiluminescence	: CDP-Star®, ECL Plus™, ECL™, SuperSignal®, ImmunoStar, CSPD®, etc.
Bioluminescence	: Luciferase

Operating conditions

Line frequency	50 / 60 Hz
Guaranteed operating conditions	
Temperature	: 15 - 28°C,
Humidity	: 30 - 70% (no condensation)
Power Consumption	: Approx. 0.2 kVA

Main body dimensions and mass

Dimensions	
Camera head and dark box	: 380 (w) \times 660 (H) \times 370 (D) mm
Controller	: 80 (w) \times 386 (H) \times 335 (D) mm
Weight	
Camera head and dark box	: Approx. 20.2 kg
Controller	: Approx. 5 kg

Optional Products

- Non-parallax tray
- UV-DIA tray

Remarks

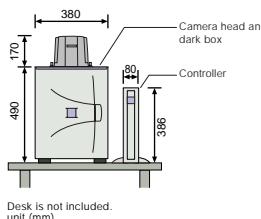
Gel documentation is available

Analyzing Unit (separate product)

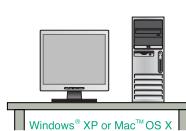
Computer	
OS	: Windows® XP / Mac™ OS X

Analysis software ScienceLab

< Image capturing unit >



< Analyzing unit >



No license is granted for fluorescent dye pre-labeled gel electrophoresis with UV transilluminator.
No license is granted for use of AttoPhos™ to detect nucleic acid on a nylon membrane.



Quality system
certified to
ISO 9001



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